

The above amendment and these remarks are responsive to the communication from Examiner Chang Y. Chung mailed 2 Feb 2000 in the above cited application, Paper No. 3,

### ***DRAWINGS***

The Draftperson has objected to the drawings 1-3B due to the poor quality of the lines, numbers and letters. Upon allowance of the case, applicants will submit formal drawing Figures 1-3B with lines, numbers and letters of the required quality.

### ***35 U.S.C. 103***

Claims 1-9 have been rejected under 35 U.S.C. 103(a) over Klein (U. S. Patent 5,845,285) in view of Geer (U. S. Patent 5,930,778).

Applicants traverse the rejection of all of these claims on the basis that the Examiner has not established a prima facie case of obviousness. The art references on

which he relies do not suggest a combination which reads on applicants claims and, in fact, both specifically teach away from applicants invention as claimed. The Examiner has in the rejection of these claims assembled a piecemeal reconstruction of prior art patents and official notice which could only be done if done in light of applicants disclosure. Such a reconstruction or combination is clearly based upon an improper hindsight view of the art after having the benefit of applicants' disclosure.

Applicants' invention provides a system and method for preventing duplicate invoices from entering a payment application (SAP). Once an invoice is identified as a duplicate, it is rejected electronically and in real-time, automatically returned to the supplier prior to entering the payment application (SAP) for invoice processing. This enables automated error notifications (aka 824 transactions) to be sent out EDI. An invoice is identified as duplicate if it is of the same vendor invoice, the same purchase order number, and the same item number.

First, with respect to Klein. Klein relates to a neural network based system for auditing data in a database for detecting duplicative data. Data already entered into the database is sampled and audited. In the course of this

audit, Klein stresses:

"The process of review requires that a user compare the sample records of the database with their corresponding source material... Verifying the sample against the original source material is one thing in the audit process that must be done by a human, since determining errors is a judgment that cannot, without further advances in electronic intelligence, be handled by a computer. " (Klein, Col. 7 lines 15-17, Col. 8 lines 5-9. See also Col. 27, lines 20-25.)

It is important to note that Klein is auditing a database, whereas applicants' invention relates to preprocessing an invoice before it is entered into a database (that is, the accounts payable database). Further, applicants teach the specific criteria upon which duplicate invoices may be identified automatically, by a computer, without the human intervention that Klein specifies is required. Klein simply does not perform the same function or achieve the same result as applicants' claimed invention, and in fact leads away from applicants solution by requiring human intervention at the very point of determining the error in data already present in the database, and in requiring that duplicate entries in the database be corrected. It is these very requirements in Klein that applicants avoid. Thus, Klein teaches:

"Additionally, if fraud/defect detection system 148 determines that no fraudulent or duplicate data are

present, the results can then be transmitted to approval system 158 which may confirm that the data is acceptable for processing to the data supplier via, for example, electronic mail or other means."

"Finally, if fraud/defect detection system 148 determines that in fact fraudulent or duplicate data may be present [ALREADY PRESENT IN THE DATABASE], the results may be transmitted to a warning report system 160 which regenerates a report indicating the various duplicate or fraudulent data. The report may then be reviewed either manually or automatically at system 162 and if necessary, THE DATA MAY THEN BE CORRECTED AT SYSTEM 164." (Klein, Col. 26, lines 32-43. Emphasis and parenthetical added.)

In accordance with applicants invention, the data (invoice) being checked is not yet in the database being audited. Therefore, the necessity which is present in Klein, to reverse or correct the database entry if an erroneous entry is found, is avoided.

Finally, with respect to Geer. Geer relates to the efficient submission of checks and other financial instruments into the payment system for collection of funds. Applicants invention relates to preprocessing of invoices to detect and reject duplicate invoices before they make it into the accounting system database. It is singularly important to realize that in Geer, a check or instrument submitted for collection is well into the financial system before action is taken for reversal.

In the event of dishonor of a check by a payor bank, the process reverses as to the collection of the dishonored check, and this information may be transmitted electronically back through payment system 12 (or by more direct means of reversal) to depository bank 10 for unwinding the transaction and for debiting of the payee's account as to the dishonored check. (Geer, at Col. 9, lines 45-50.)

Thus, to the extent that Geer can be combined with Klein to be applied to applicants' invention (which combination applicants traverse for failure on the part of the Examiner to provide a prima facie case for so doing) Geer teaches away from applicants' invention. It is this necessity for unwinding of transactions that applicants' invention prevents in the context of invoice processing.

Referring now to applicants claims.

With respect to claim 1, the Examiner states that Klein teaches at Col. 26, lines 38-43, rejecting data as duplicate without introducing the data into the system. Applicants traverse this reconstruction of Klein, who clearly states that "if necessary, the data may then be corrected" - there is no teaching in Klein that the data is checked for duplicate entries before being entered into the database being audited. In Klein, the data being audited is sampled from the database.

The Examiner then states that while Klein does not explicitly teach preprocessing of invoices (applicants agree), Geer discloses at Col. 6, lines 43-45, preprocessing of invoices. Applicants traverse this reading of Greer, who states at the place referenced by the Examiner:

Appropriate information from the checks is extracted and converted into electronic form for sorting, processing and transmission into and through the payment system. (Geer, col. 6, lines 41-44.)

This is merely a data entry step. The data is entered into the collection system and must be reversed if later found to be erroneous. This was discussed above, in connection with Geer, Col. 9 lines 45-50, where dishonored checks are finally identified, and the clearance process must be reversed.

The Examiner then states that Klein does not explicitly teach introduction to and rejection from a accounts payable data base (applicants agree), but then goes on to say Klein does suggest this feature at Col. 26, lines 40-44 and Col. 27, lines 22-25. Applicants traverse this characterization of Klein as previously discussed. The data being corrected by Klein is already in the database being audited.

Applicants, on the other hand, avoid entering into an accounts payable database invoices which, if entered, would

be duplicates. Clearly, the Examiner is placing a reading on Klein which is not warranted by the clear teachings of Klein as previously discussed.

Applicants have amended claim 1 to further clarify this distinction over the art references, by reciting:

"...preprocessing before introduction into an accounts payable data base original electronic invoices received from a vendor to identify duplicate invoices..."

With respect to claim 2, Klein is applied as above with respect to claim 1, but then official notice is taken to grab data before input into a database. However, in taking this notice, the Examiner is going specifically contrary to the teachings of Klein, which is sampling data already entered into the database for purpose of auditing, and which requires that duplicate or erroneous data be "corrected". In suggesting that inbound EDI invoice could be grabbed before inputting it into a database to allow detection of duplicate as soon as possible, the Examiner is improperly using applicants disclosure against their claim. The art does not suggest or even recognize the advantage of detecting duplicates as soon as possible, but rather much later, in the course of auditing data already entered.

Applicants have further amended claim 2 to specify the particular and novel algorithm upon which duplicate invoices are identified.

With respect to claim 3, applicants simply traverse. The reading of Klein given by the Examiner to suggest Klein teaches the specific steps executed by applicants' claim 3 to identify duplicate invoices is simply and unquestionably a hindsight reconstruction of Klein based on applicants own disclosure. Nowhere does Klein teach the essential elements for identifying duplicates. Rather, Klein states that such cannot be done by a computer, that it MUST BE DONE BY A HUMAN. (Klein, column 8, lines 6-7). Applicants claimed algorithm provides the way to do that which Klein says cannot be done. Applicants traverse the rejection of claim 3.

With respect to claim 4, applicants have clarified that the steps relating to identification of duplicate invoices are performed automatically. As previously discussed with respect to claim 3, Klein teaches away from an automated approach to identifying duplicate items by requiring human intervention at the very point in the process which applicants claim by automated means. The Examiner also states that Klein does not explicitly teach grabbing an



invoice from a vendor before it is input to an accounts payable database and creating a transaction to a vendor. Applicants agree. However, applicants assert that only impermissible hindsight reasoning and the use of applicants disclosure against the claim provide any basis for the Examiner to take official notice of the grabbing step. The only art applied in this case against any of the claims clearly require just the opposite: eventual detection of erroneous or duplicate data entries require that the database be corrected or entries reversed. That is precisely the problem in the art (entry of duplicate invoices into an accounts payable database that must be later reversed) that applicants' invention as claimed prevents.

With respect to claim 5, applicants have amended the claim to call out the specific, automatically executed steps for identifying and rejecting duplicate invoices before they are entered into an accounts payable database. As previously noted, Klein specifically teaches away from such a solution. The Examiner's reliance upon Geer for the preprocessing step is not supported by the reference itself. As previously discussed, erroneous entries to the check clearance process of Geer must be reversed. The preprocessing which Geer done, and upon which the Examiner

relies, is merely a data entry step. Checks which will not clear are identified much later, and must be reversed.

With respect to claim 6, the Examiner states that Klein does not explicitly teach grabbing, does not explicitly teach (the steps applicant claims for identifying duplicate invoices), does not explicitly teach communicating a duplicate invoice rejection message back to the vendor. Nowhere in the art of record is there any teaching of rejecting a computer detected duplicate invoice back to a vendor before it is entered into the accounts payable database. Applicants assert that the only basis on which these teachings can be implied from Klein involves impermissible hindsight reconstruction of Klein based upon applicants own disclosure and requires that the specific teachings of Klein be discounted. Applicants claim requires that these steps be performed by a computer, and Klein specifically teaches that any identification of erroneous data in the database being sampled and audited be done by a human.

With respect to claim 7, the Examiner states that Klein does not explicitly teach grabbing an invoice before input to an accounts payable database, nor identifying duplicate invoices (based upon the net sum analysis performed by a

computer), nor communicating a duplicate invoice rejection back to the vendor. Nowhere in the art of record is there any teaching of rejecting a computer detected duplicate invoice back to a vendor before it is entered into the accounts payable database. Applicants assert that the only basis on which these teachings can be implied from Klein involves impermissible hindsight reconstruction of Klein based upon applicants own disclosure and requires that the specific teachings of Klein be discounted. Applicants claim requires that these steps be performed by a computer, and Klein specifically teaches that any identification of erroneous data in the database being sampled and audited be done by a human.

With respect to claim 8, the Examiner states that Klein does not explicitly teach preprocessing of invoices. Applicants agree. However, the Examiner then states that Geer discloses such. Applicants traverse. As previously noted, Geer relates, at the point cited by the Examiner, to data entry into a check clearance system. Erroneous checks are not identified until much later, and then require that the entry be reversed. Applicants claim, as amended, further recites the specific, computer executed algorithm for identifying duplicate invoices. Neither Geer or Klein teach such. The suggestion of the Examiner that it would be

obvious to filter and sort out duplicate invoices before entry into an accounts data base as soon as the data is available requires that impermissible hindsight reconstruction of Klein and/or Geer based upon applicants own disclosure.

With respect to claim 9, the Examiner states that Klein does not explicitly teach grabbing an invoice before input to an accounts payable database, nor identifying duplicate invoices (based upon the net sum analysis performed by a computer), nor communicating a duplicate invoice rejection back to the vendor. Nowhere in the art of record is there any teaching of rejecting a computer detected duplicate invoice back to a vendor before it is entered into the accounts payable database. Applicants assert that the only basis on which these teachings can be implied from Klein involves impermissible hindsight reconstruction of Klein based upon applicants own disclosure and requires that the specific teachings of Klein be discounted. Applicants claim requires that these steps be performed by a computer, and Klein specifically teaches that any identification of erroneous data in the database being sampled and audited be done by a human.

Applicants request that claims 1-9 be allowed.

## SUMMARY AND CONCLUSION


Applicant(s) urges that the above amendments be entered and the case passed to issue with claims 1-9.

If, in the opinion of the Examiner, a telephone conversation with applicant(s) attorney could possibly facilitate prosecution of the case, he may be reached at the number noted below.

Sincerely,

M. W. Beach, et al

By

  
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